What is claimed is:

1.   A communication terminal apparatus comprising:

a plurality of search correlation means for performing correlation detection of a signal transmitted

5   from a base station apparatus to be searched; and

search control means for controlling a phase for each of said search correlation means to perform the correlation detection,

wherein said search control means makes each of said

10   search correlation means calculate a first correlation value on every phase over a first integration time, selects a phase with the first correlation value more than a threshold in descending order of the first correlation value, makes each of said search correlation

15   means calculate a second correlation value on a selected phase over a second integration time longer than the first integration time, and specifies a phase with a greatest second correlation value as a phase of the signal transmitted from the base station apparatus.

20   2.   A communication terminal apparatus comprising:

a plurality of search correlation means for performing correlation detection of a signal transmitted from a base station apparatus to be searched; and

search control means for controlling a phase for

25   each of said search correlation means to perform the correlation detection,

wherein said search control means makes each of said

search correlation means calculate a first correlation value on every phase over a first integration time, compares the first correlation value with a threshold, makes some of said search correlation means calculate

5 a second correlation value on a phase with the first correlation value more than the threshold over a second integration time longer than the first integration time, makes rest of said search correlation means that is not used in calculating the second correlation value

10 calculate a third correlation value on a peripheral phase of a phase with a greatest first correlation value, specifies a phase with a greatest second correlation value as a phase of the signal transmitted from the base station apparatus, and specifies a phase of a delayed

15 wave based on the third correlation value.

3.   A communication terminal apparatus comprising:

a plurality of search correlation means for performing correlation detection of a signal transmitted from a base station apparatus to be searched;

20   demodulation correlation means for performing correlation detection of another signal transmitted from another base station apparatus currently communicating with said communication terminal apparatus; and

search control means for controlling a phase for

25 each of said search correlation means and said demodulation correlation means to perform the correlation detection,

wherein said search control means makes each of said search correlation means calculate a first correlation value on every phase over a first integration time, compares the first correlation value with a threshold,

5 makes said demodulation means calculate a second correlation value on a phase with the first correlation value more than the threshold over a second integration time longer than the first integration time, makes each of said search correlation means calculate a third

10 correlation value on a peripheral phase of a phase with a greatest first correlation value, specifies a phase with a greatest second correlation value as a phase of the signal transmitted from the base station apparatus to be searched, and specifies a phase of a delayed wave

15 based on the third correlation value.

4.   A cell search method, comprising:

performing first correlation detection of a transmitted signal to be searched over a first integration time on every phase;

20   comparing a first correlation value in the first correlation detection with a threshold;

performing second correlation detection on a phase with the first correlation value more than the threshold over a second integration time longer than the first

25 integration time in descending order of the first correlation value; and

specifying a phase with a greatest second

correlation value in the second correlation detection as a phase of the transmitted signal.

5. A cell search method, comprising:

performing first correlation detection of a

5   transmitted signal to be searched over a first integration time on every phase;

comparing a first correlation value in the first correlation detection with a threshold;

performing second correlation detection on a phase

10 with the first correlation value more than the threshold over a second integration time longer than the first integration time, while concurrently performing third correlation detection on a peripheral phase of a phase with a greatest first correlation value;

15 specifying a phase with a greatest second correlation value in the second correlation detection as a phase of the transmitted signal; and

specifying a phase of a delayed wave based on the third correlation value.

20 6. A cell search method, comprising:

performing in a first correlator first correlation detection of a transmitted signal to be searched over a first integration time;

comparing a first correlation value in the first

25 correlation detection with a threshold;

performing in a second correlator second correlation detection on a phase with the first

correlation value more than the threshold over a second integration time longer than the first integration time;

performing in said first correlator third correlation detection on a peripheral phase of a phase

5 with a greatest first correlation value;

specifying a phase with a greatest second correlation value in the second correlation detection as a phase of the transmitted signal; and

specifying a phase of a delayed wave based on the

10 third correlation value.